Table 1
Summary of Applicable Water Quality Criteria and Objectives
Considered in the RPA

ATTACHMENT D

Constituent / Parameter	Water Quality Objective	Source	Criterion[1]	Units	MEC[4]	Projected MEC[5]	Max RW Conc. [6]	RP[7]
Aluminum	Chemical Constituents	California Primary MCL	1000	ug/L	5.4	25.38		N
		California Secondary MCL	200	ug/L				
		Water Quality for Agriculture (Ayers & Westcot)	5000	ug/L				
	Tastes and Odors	California Secondary MCL	200	ug/L				
	Toxicity - humans	California Public Health Goal for Drinking Water	600	ug/L				
	Toxicity - aquatic life	USEPA National Recomm. W Q Criteria / 4-day avg (total) (f)	87	ug/L				
		USEPA National Recomm. W Q Criteria / 1-hour avg (total) (f)	750	ug/L				
Ammonia	Tastes and Odors	Odor threshold (Amoore and Hautala)	1500	ug/L				
(Ammonium)	Toxicity - humans	USEPA Draft Health Advisory	30,000	ug/L				
	Toxicity - aquatic life	*USEPA National Ambient Water Quality Criteria - continuous concentration*[2]	**591**	ug/L	2500	11750		Y
	Toxicity - aquatic life	*USEPA National Ambient Water Quality Criteria – maximum*[2]	**2140**	ug/L	2500	11750		Y
Arsenic (CTR # 2)	Chemical Constituents	California Primary MCL	50	ug/L				
		USEPA Primary MCL	**10**	ug/L	21		15	Y
	Trace Element Objective	*Basin Plan Table III-1 – Maximum, Dissolved*	**10**	ug/L	21		15	Y
	Toxicity - humans	Cal/EPA Cancer Potency Factor as a drinking water level (b)	0.023	ug/L				
		USEPA National Ambient Water Quality Criteria	0.018	ug/L				
	CTR - aquatic life	California Toxics Rule (USEPA) - continuous concentration	150	ug/L				
		California Toxics Rule (USEPA) - maximum criterion	340	ug/L				
Barium	Trace Element Objective	*Basin Plan Table III-1 – Maximum, Dissolved*	**100**	ug/L	340	1598	390	Y
	Chemical Constituents	California Primary MCL	1000	ug/L				
	Toxicity - humans	USEPA IRIS Reference Dose (c)	490	ug/L				
Cadmium (CTR # 4)	Chemical Constituents	California Primary MCL	5	ug/L	ND		0.61	N
		Water Quality for Agriculture (Ayers & Westcot)	10	ug/L				
	Toxicity - humans	California Public Health Goal for Drinking Water	0.07	ug/L				
	CTR-aquatic life	California Toxics Rule (USEPA) - acute criteria[3]	2.4	ug/L				
	CTR - aquatic life	California Toxics Rule (USEPA) - chronic criteria[3]	1.6	ug/L				
Chloride	Chemical Constituents	California Secondary MCL	250,000	ug/L	48000	225600	44000	N
		Water Quality for Agriculture (Ayers & Westcot)	106,000	ug/L				
	Tastes and Odors	California Secondary MCL	250,000	ug/L				
	Toxicity - aquatic life	USEPA National Ambient W Q Criteria / 4-day average	230,000	ug/L				

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		USEPA National Ambient W Q Criteria / 1-hour average	860,000	ug/L				
Chromium (III) (CTR # 5a)	Chemical Constituents	California Primary MCL	50	ug/L	17		3.6	N
	Toxicity - humans	USEPA IRIS Reference Dose (c)	10,500	ug/L				
	NTR - aquatic life	National Toxics Rule (USEPA) - continuous concentration (2)	132.5	ug/L				
Chromium (VI) (CTR #5b)	Chemical Constituents	California Primary MCL	50	ug/L				
		Water Quality for Agriculture (Ayers & Westcot)	100	ug/L				
	Toxicity - humans	USEPA IRIS Reference Dose (c)	21	ug/L				
	CTR - aquatic life	*California Toxics Rule (USEPA) - chronic criteria*	**11**	ug/L	17		1.8	Y
		California Toxics Rule (USEPA) - acute criteria	**16**	ug/L	17		1.8	Y
Copper (CTR #6)	Chemical Constituents	California Primary MCL	1300	ug/L				
		California Secondary MCL	1000	ug/L				
	Toxicity - aquatic life	Basin Plan Table III-1 - Acute	10	ug/L				
	Tastes and Odors	California Secondary MCL	1000	ug/L				
	CTR - humans	California Toxics Rule (USEPA) for sources of drinking water	1300	ug/L				
	CTR - aquatic life	*California Toxic Rule (USEPA) - acute criteria*[3]	**8.4**	ug/L	1.3		28	Y-RW
	CTR - aquatic life	*California Toxics Rule (USEPA)- chronic criteria*[3]	**5.9**	ug/L	1.3		28	Y-RW
delta-BHC	(Toxicity)	Basin Plan ND for Chlorinated Pesticides	**ND**		ND		0.07	Y-RW
	Toxicity - humans	Drinking Water Health Advisories - NAS (7-day)	500	ug/L				
DDT (CTR #108)	Toxicity	*Basin Plan ND for Chlorinated Pesticides*	**ND**		ND		0.06	Y-RW
	CTR - humans	California Toxics Rule (USEPA) for sources of drinking water	0.00059	ug/L				
	CTR - aquatic life	California Toxics Rule (USEPA) - continuous concentration	0.001	ug/L				
		California Toxics Rule (USEPA) - maximum criterion	1.1	ug/L				
DDE (CTR #109)	Toxicity	*Basin Plan ND for Chlorinated Pesticides*	**ND**		ND		0.08	Y-RW
	CTR - humans	California Toxics Rule (USEPA) for sources of drinking water	0.00059	ug/L				
DDD (CTR #110)	Toxicity	*Basin Plan ND for Chlorinated Pesticides*	**ND**		ND		0.8	Y-RW
	CTR - humans	California Toxics Rule (USEPA) for sources of drinking water	0.00083	ug/L				
(Bis(2-ethylhexyl)phthalate (CTR #68))	Chemical Constituents	California Primary MCL	4	ug/L	ND		2.9	Unk
(DEHP)	NTR - humans	National Toxics Rule (USEPA) for sources of drinking water	1.8	ug/L				
Iron	Trace Element Objective	*Basin Plan Table III-1 – Dissolved, Maximum*	**300**	ug/L	1100	5170	1900	Y

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	Chemical Constituents	*California Secondary MCL*	**300**	ug/L	1100	5170	1900	Y
	Chemical Constituents	Water Quality for Agriculture (Ayers & Westcot)	5000	ug/L				
	Toxicity - aquatic life	USEPA National Ambient W Q Criteria / 4-day average	1000	ug/L				
Lead (CTR #7)	Chemical Constituents	California Primary MCL	15	ug/L				
		Water Quality for Agriculture (Ayers & Westcot)	5000	ug/L				
	Toxicity - humans	California Public Health Goal for Drinking Water	2	ug/L				
	CTR - aquatic life	*California Toxic Rule (USEPA) - acute criteria[3]*	**41**	ug/L	**0.52**		71	Y-RW
	CTR - aquatic life	*California Toxics Rule (USEPA) - chronic criteria[3]*	**1.6**	ug/L	**0.52**		71	Y-RW
Manganese	Trace Element Objective	*Basin Plan Table III-1 – Maximum, Dissolved*	**50**	ug/L	88	413.6	160	Y
	Chemical Constituents	*California Secondary MCL*	**50**	ug/L	88	413.6	160	Y
	Chemical Constituents	Water Quality for Agriculture (Ayers & Westcot)	200	ug/L				
	Toxicity - humans	California DHS Action Level for drinking water	500	ug/L				
Methyl t-butyl ether	Chemical Constituents	California Primary MCL	13	ug/L	4.1	na	na	N
(MTBE)		California Secondary MCL	5	ug/L				
	Toxicity - humans	California Public Health Goal for Drinking Water	13	ug/L				
Mercury (CTR #8)	Chemical Constituents	California Primary MCL	2	ug/L				
	Toxicity - aquatic life	USEPA National Ambient W Q Criteria / 4-day average	0.77	ug/L				
		USEPA National Ambient W Q Criteria / 1-hour average	1.4	ug/L				
	CTR - humans	*California Toxics Rule (USEPA) - sources of drinking water*	**0.05**	ug/L	0.11		0.13	Y
Nickel	Chemical Constituents	California Primary MCL	100	ug/L	2.7		5.9	N
		Water Quality for Agriculture (Ayers & Westcot)	200	ug/L				
	CTR - humans	Californa Toxics Rule (USEPA) for sources of drinking water	610	ug/L				
	CTR - aquatic life	*California Toxic Rule (USEPA) - acute criteria*	*295.9*	*ug/L*				
	CTR - aquatic life	California Toxics Rule (USEPA) - chronic criteria	32.9	ug/L				
Nitrate + Nitrite (as N)	Chemical Constituents	California Primary MCL	10,000	ug/L	2100	9870		N
Selenium (CTR #10)	Chemical Constituents	California Primary MCL	50	ug/L	1.4		1.1	N
		Water Quality for Agriculture (Ayers & Westcot)	20	*ug/L*				
	Toxicity - humans	USEPA IRIS Reference Dose (c)	35	ug/L				
	NTR - aquatic life	National Toxics Rule (USEPA) - continuous concentration	5	ug/L				
		National Toxics Rule (USEPA) - maximum criterion	20	ug/L				
Specific conductance	Chemical Constituents	California Secondary MCL	900	umhos/cm	1600		680	**Unk**

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Electrical conductivity		Water Quality for Agriculture (Ayers & Westcot)	700	umhos/cm				
(EC)	Tastes and Odors	California Secondary MCL	900	umhos/cm				
Sulfate	Chemical Constituents	California Secondary MCL (Ambient level)	250	mg/L	68	319.6	56	Unk
		California Secondary MCL (upper level)	500	mg/L				
	Tastes and Odors	California Secondary MCL (Ambient level)	250	mg/L				
	Toxicity - humans	USEPA Proposed MCL Goal	500	mg/L				
Tetrachloroethylene (PCE)	Chemical Constituents	California Primary MCL	5	ug/L				
	Tastes and Odors	Odor threshold (Amoore and Hautala)	170	ug/L				
	Toxicity - aquatic life	USEPA National Ambient W Q Criteria / chronic tox info	840	ug/L				
	NTR - humans	National Toxics Rule (USEPA) for sources of drinking water	0.8	ug/L	2.2		nd	Y
Total Dissolved Solids	Chemical Constituents	California Secondary MCL	500,000	ug/L	570000	na	480000	Unk
(TDS)		Water Quality for Agriculture (Ayers & Westcot)	450,000	ug/L				
	Tastes and Odors	California Secondary MCL	500,000	ug/L				
Zinc (CTR #13)	Trace Element Objective	Basin Plan Table III-1 – Maximum, Dissolved	100	ug/L				
	Chemical Constituents	California Secondary MCL	5000	ug/L				
		Water Quality for Agriculture (Ayers & Westcot)	*2000*	*ug/L*				
	Tastes and Odors	California Secondary MCL	5000	ug/L				
	Toxicity - humans	USEPA IRIS Reference Dose (c)	2100	ug/L				
	CTR - aquatic life	*California Toxic Rule (USEPA) - acute criteria[3]*	**76**	ug/L	ND		160	Y - RW
	CTR - aquatic life	*California Toxics Rule (USEPA) - chronic criteria[3]*	**76**	ug/L	ND		160	Y - RW

(1) Source in italics used in RPA
(2) Using pH=8.5 and temperature = 24 degrees C for Criterion Continuous Concentration, pH = 8.5 for Criterion Maximum Concentration
(3) Based on hardness = 58 mg/L as CaCO3
(4) Maximum Effluent Concentration
(5) The projected MEC (maximum effluent concentration) is determined by multiplying the maximum detected concentration with a reasonable potential multiplying factor that accounts for statistical variation. The multiplying factor (for 99% confidence level and 99% probability basis) is dependent on the coefficient of variation (CV) and number of reported effluent results. For less than 10 effluent data points, CV is estimated to equal 0.6. The multiplying factor is 4.7 for four samples and a CV of 0.6.
(6) Maximum Receiving Water Concentration
(7) Reasonable Potential Determination- "Y" means effluent has reasonable potential to cause or contribute to an exceedance of the most stringent criteria or objective. "Y-RW" means maximum concentration of receiving water exceeded most stringent water quality criteria or objective